Title: DEVICE AND METHOD TO REDUCE WORDLINE RC TIME CONSTANT IN SEMICONDUCTOR MEMORY DEVICES

REMARKS

This responds to the Office Action dated October 19, 2004. Claims 1, 5, 8, 15, 19, 26, 30, 37, 45, and 49 are amended; as a result, claims 1-41 and 45-54 are now pending in this application.

§102 Rejection of the Claims

Claims 1-41 and 45-54 were rejected under 35 USC § 102(b) as being anticipated by Cowles (U.S. Patent No. 5,940,315). Applicant respectfully traverses the rejection.

Regarding claims 1-4:

Applicant cannot find in Cowles, among other things,

a strapping line of lower resistance than the wordlines coupled to a single continuous wordline in a single array wherein the strapping line bypasses only a portion in a middle region between a first and second end of the single continuous wordline, wherein the strapping line is spaced apart from adjacent conductive structures by a distance greater than a wordline pitch, and wherein the strapping line bypasses a different portion of a wordline within the single array than an adjacent strapping line,

as presently recited or incorporated in the contested claims.

Regarding claims 5-7:

Applicant cannot find in Cowles, among other things,

a plurality of separate strapping lines of lower resistance than the wordlines coupled to at least one of the number of wordlines in a single array wherein the strapping lines bypass a plurality of separate portions of a single continuous wordline, and wherein adjacent strapping lines bypass different portions of adjacent wordlines within the single array,

as presently recited or incorporated in the contested claims.

Regarding claims 8-14:

Applicant cannot find in Cowles, among other things,

a number of strapping devices which bypass portions of the wordlines in the single array of parallel wordlines, wherein at least one portion of a single

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continuous wordline is only in a middle region between a first and second end of the single continuous wordline, and wherein adjacent strapping devices bypass different portions of adjacent wordlines within the single array,

as presently recited or incorporated in the contested claims.

Regarding claims 15-18:

Applicant cannot find in Cowles, among other things,

a strapping line of lower resistance than the wordlines coupled to a single continuous wordline wherein the strapping line bypasses only a portion in a middle region between a first and second end of the single continuous wordline, wherein the strapping line is spaced apart from adjacent conductive structures by a distance greater than a wordline pitch, and wherein the strapping line bypasses a different portion of a wordline within the single array than an adjacent strapping line,

as presently recited or incorporated in the contested claims.

Regarding claims 19-25:

Applicant cannot find in Cowles, among other things,

a number of separate strapping devices which bypass separate portions of a single continuous wordline in the single array of parallel wordlines, and wherein adjacent strapping devices bypass different portions of adjacent wordlines within the single array,

as presently recited or incorporated in the contested claims.

Regarding claims 26-29:

Applicant cannot find in Cowles, among other things,

a strapping line of lower resistance than the wordlines coupled to a single continuous wordline wherein the strapping line bypasses only a portion in a middle region between a first and second end of the single continuous wordline, wherein the strapping line is spaced apart from adjacent conductive structures by a distance greater than a wordline pitch, and wherein the strapping line bypasses a different portion of a wordline within the single array than an adjacent strapping line,

as presently recited or incorporated in the contested claims.

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Regarding claims 30-36:

Applicant cannot find in Cowles, among other things,

a number of strapping devices which bypass only portions of the wordlines in the single array of parallel wordlines, wherein at least one portion of a single continuous wordline is in a middle region between a first and second end of the single continuous wordline, and wherein adjacent strapping devices bypass different portions of adjacent wordlines within the array,

as presently recited or incorporated in the contested claims.

Regarding claims 37-41:

Applicant cannot find in Cowles, among other things,

spacing a number of strapping devices over wordlines in a single memory array apart from adjacent strapping devices by a distance greater than a wordline pitch, wherein adjacent strapping devices bypass different portions of adjacent wordlines within the single memory array,

as presently recited or incorporated in the contested claims.

Regarding claims 45-48:

Applicant cannot find in Cowles, among other things,

attaching a strapping line of lower resistance than the wordlines to a single continuous wordline wherein the strapping line bypasses only a portion in a middle region between a first and second end of the single continuous wordline, wherein the strapping line is spaced apart from adjacent conductive structures by a spacing greater than a wordline pitch and wherein the strapping line bypasses a different portion of a wordline within the single array than an adjacent strapping line,

as presently recited or incorporated in the contested claims.

Regarding claims 49-54:

Applicant cannot find in Cowles, among other things,

attaching a number of strapping lines of lower resistance than the wordlines which bypass portions of the wordlines in the array of parallel wordlines, wherein at least one portion of a single continuous wordline is only in a middle region between a first and second end of the single continuous wordline, wherein the strapping lines are each located a distance from each other that is greater than the

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pitch, and wherein adjacent strapping lines bypass different portions of adjacent wordlines within the single array,

as presently recited or incorporated in the contested claims.

Applicant respectfully requests reconsideration and allowance of claims 1-41 and 45-54.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 349-9587 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this _____ day of January, 2005.

Signature

Name